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Hungarian Economic Reforms

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**United States
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ABSTRACT

Hungary's market-oriented economic reforms in 1968 were followed from 1973 through 1978 by strict Government controls, centralization of enterprises, and heavy foreign borrowing. The expansionary policy financed with foreign loans brought the country to the verge of bankruptcy. An austerity program introduced in 1979 with return to the 1968 reform principles led to significant reduction of rate of economic growth. After a financial turnaround, the policymakers initiated a management reform in 1985 with emphasis on workers' participation. In contrast with industry, the agricultural sector operated under the reform principles throughout the seventies and enjoyed fast production growth. But since 1979, because of higher production cost and reduced investment, the rate of growth and profits declined.

KEYWORDS: Reforms, agricultural production, food consumption, agricultural trade, outlook, implications.

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SUMMARY

The Hungarian economic policy in the seventies and eighties has had an irregular path. New measures often ignored the New Economic Mechanism (NEM), introduced in 1968 as a radical departure from detailed central planning. The features of NEM included management independence in day-to-day activities within established limits, decontrol of about a third of the prices, and a mix of directives with guidance through macroeconomic tools such as official prices, subsidies, credits, and taxes.

The architects of NEM hoped to gradually increase the weight of free market influence. But, during the seventies, first political and later social considerations prohibited any refinement of the 1968 reform. After the 1973 energy price explosion, the Government opted for recentralization, strict price control, and heavy foreign borrowing to shelter the Hungarian economy from inflation. This policy lasted through 1978. The population, in the meantime, enjoyed unprecedented prosperity on borrowed funds. Large investments in machinery and agriculture-related industries facilitated a technological revolution in agriculture. Principal crops, dairy, poultry, and hog farming had impressive productivity growth rates. The value of gross agricultural production during 1977-79 exceeded the 1971-73 base by 23 percent. But, net growth rate was only 4 percent, reflecting increased costs of inputs and use of high technology.

The expansionary policy financed with foreign loans during 1973-78 with disregard for the deteriorated terms of trade brought the country to the verge of bankruptcy. To save creditworthiness, a policy of austerity was introduced in 1979, but simultaneously a return to the NEM principles was also initiated. This was manifested in more independent enterprise management and in official support to private entrepreneurs. Retail prices were raised to suppress consumption, restrictions and currency devaluation reduced imports, and withdrawal of funds from enterprises and higher taxes dried out investments during 1979-84. These measures significantly reduced the rate of economic growth and per capita disposable income. Agricultural gross production during 1980-82, however, was still 8 percent higher than during 1977-79, only 3 percentage points lower than the growth between 1974-76 and 1977-79.

In contrast with industry, the agricultural cooperatives preserved the NEM principles during the seventies. While agriculture's share in investment allocation declined, the volume of agricultural exports increased. But higher production costs forced the farm managers to be thrifty and conduct business with lower profits. To earn additional income in the agricultural sector, individuals stepped up household farming activities and enterprises expanded their nonfarm businesses.

In 1982, Hungary obtained membership in the International Monetary Fund (IMF) and the World Bank. These international institutions, observing the Hungarian efforts to put the economy in order, responded favorably to Hungarian requests for long-term loans. With the help of fresh long-term credits and with improved trade balance, the short-term debt accumulation has reversed since 1981 and the debt service has become manageable.

Mobilization of internal resources with the help of free market forces has been the chosen road to higher economic growth and better living standards. The policymakers, encouraged by the financial turnaround, announced at the end

of 1984 a revised economic program called "further development of macroeconomic management," to be effective in January 1985. This "further development" involves having workers participate in management, giving more freedom from bureaucratic interference to enterprise managers, fostering competition, releasing more prices from under Government price fixing, allowing private enterprises to expand, and using wages more effectively as production incentives.

None of the members of the Council for Mutual Economic Assistance (CMEA) adopted the Hungarian NEM so far. Nevertheless, the NEM in Hungary demonstrated some success, particularly in the agricultural sector. The accumulation of state debt was caused by deviating from the NEM; the NEM cannot be blamed for the indebtedness.

The economic outlook influenced by the 1984 legislation is subject to speculation. Hungarian economists assume that some inequalities in income and temporary dislocations in employment may occur, but this eventual consequence will be more than compensated by the benefits from evolving structural changes in the economy leading ultimately to economic recovery.

The Hungarian economic changes beginning in 1985 will have a narrow implication for the United States. If the Hungarian economy recovers, import restrictions will be suspended and U.S. export potential to Hungary will improve. The implication will be more pronounced if the Hungarian economic approach is adopted by the Soviet Union. Free market forces would lead to price realignment and may alter the composition of supply and demand in the Soviet Union.

Hungarian Economic Reforms

Thomas A. Vankai

Introduction

This report scrutinizes the significance and extent of the recent economic reforms in Hungary, describes the accomplishments in the agricultural sector since 1971, and discusses the outlook for agricultural trade under further refinements in the economic system which began in 1985.

The analyses in this report are based principally on official Hungarian statistical data. The data are compared for 3-year periods from 1971 to 1982.

Economic reforms in Hungary date back to 1968 with the principal aim to lift the economy out of a sluggish growth trend. The reform called New Economic Mechanism (NEM) abandoned the rigid central planning with detailed instruction to the enterprise managers.^{1/} The NEM incorporated some free market features and assumed gradual decontrol of prices in successive years, which did not materialize. The NEM helped to accelerate economic growth in Hungary. Nevertheless, none of the CMEA members adopted the Hungarian economic model.

During 1971-82, the Hungarian economy underwent two distinct changes. Beginning in 1973, central intervention overshadowed the elements of free markets introduced in 1968. An economic policy of fast growth was sustained with the help of large foreign credits through 1978. From 1979 to 1984, an austerity program was in effect to facilitate debt repayments and safeguard Hungarian creditworthiness. The impact of these changes affected agriculture more moderately than the rest of the economy, because agriculture continued to operate on the 1968 NEM principles.

The shifts in economic policies in 1973 and 1979 were less comprehensive than the reform in 1968. They were gradual and were triggered by the changed economic environment abroad rather than by domestic slowdown. Another reform started in 1985. This reform is labeled as "further development of macroeconomic management system" and it is intended to encompass the NEM in a refined version.

Questions have been raised: How will the reforms change the supply and demand in Hungary? Will the Hungarian approach be followed in the USSR, and in other

^{1/} T. Vankai, "Agricultural Aspects of Hungarian Economic Reforms," Foreign Agriculture, July 21, 1969, and "New Freedom and Gains in Hungary's Collective Agriculture," Foreign Agriculture, Sept. 6, 1971.

East European countries? If the Hungarian model is adopted in the USSR, what will this mean for world trade and for U.S. exports?

The USSR and other East European countries are also experimenting with economic reforms. Policymakers in Eastern Europe and USSR are disenchanted with the economic development under their centrally planned management. They are searching for ways to stimulate production and productivity and to allocate resources more efficiently. The reforms differ by countries according to the blend of market forces, macroeconomic tools, or outright orders applied. No uniform reforms will likely develop in the region because of the large variations in the countries' size, wealth, dependence on foreign trade, and political stability. Investigations of the feasibility of reforms in centrally planned countries and their options for choices can be helpful in projecting the agricultural trade of these countries.

The NEM in Hungary permeated most permanently in the agricultural sector. The accelerated growth of gross agricultural output after 1968 can in part be attributed to the relative management freedom and pecuniary incentives imbedded in the reform. Agriculture prospered during the interventionist years also, but the growth slowed down under the impact of the austerity program. The cooperative management practice in the agricultural sector with members' participation is used now in the 1985 reforms as an example for state farm and industry management.

GENERAL ECONOMIC SITUATION, 1971-78

The Hungarian economy experienced moderate growth and the population enjoyed a gradually improving living standard during the early seventies. The favorable economic climate was attributed to the NEM introduced in 1968. The main feature of the NEM was a shift from rigid detailed planning to flexible indicative planning using macroeconomic tools rather than administrative orders in guiding the enterprises and permitting a limited influence of market forces on the economy. Officially established prices, credits, subsidies, and taxes were the principal guiding tools. However, about a third of the prices were allowed free movement on the basis of supply and demand. In agriculture, procurement prices of all field crops remained officially established. Detailed directives, however, for enterprise operation were abandoned; local managers received more independence and their salaries were tied to accomplishments.

NEM architects hoped that the role of the free market would be more enhanced in successive years. This hope was not realized as the 1973 oil price explosion drastically changed international price relationships, disrupted traditional trade patterns, and caused a recession in several countries which had relied on imported oil. Policymakers decided to shield the Hungarian economy from the price shocks and, consequently, interventionists gained an upper hand over the market advocates. The NEM, while not completely discarded, was relegated to backstage. To strengthen Government control, enterprises were consolidated into large trusts according to type of production. With the help of budgetary maneuvers and imports financed with Western credits, a temporary solution was found to continue production growth and increase living standards. The interventionary policy saved the population from hardship in the short run and helped to maintain political stability, but led the country to the brink of insolvency.

The isolation of the domestic economy from foreign price changes continued even after 1974, when CMEA countries renegotiated the intra-CMEA trade prices which had been traditionally fixed for 5-year periods. The CMEA price changes in 1975 were detrimental to raw material poor Hungary. Based on 1970 prices, average Hungarian import prices by 1977-79 had increased 50 percent while export prices increased only 22 percent (table 1). Hungary was unable to offset the deteriorated terms of trade with additional exports. The Hungarian trade deficit consequently worsened annually since 1973 and peaked with a negative balance of \$2 billion in 1978 (table 2).

Hungary, while increasing its investments in its socialized economy between 1971-73 and 1977-79 by 54 percent and achieving a 38-percent growth in national income, accumulated during the same period a huge hard currency debt to the West, reaching a net \$8 billion in 1980 (table 3).

From 1973 to 1979, Hungary lived beyond its means. Per capita real income increased 14.2 percent between 1971-73 and 1974-76 and another 9 percent between 1974-76 and 1977-79 while foreign debts gradually increased to the precarious \$8 billion level (table 4).

By 1975, policymakers realized that the economy was overheating. Discussions among economists proliferated, some calling for a return to the principles of 1968 reforms, some for more drastic actions. Plans in preparation for 1976-80 aimed at slower growth. However, no major actions were taken until 1979 when it became evident that no new credit was available to finance old debts. One remedial measure was a 1976 general price increase. However, the higher retail prices were partially offset by wage hikes and thus the higher prices did not reduce consumer demand and, consequently, the pressure for increased imports.

AGRICULTURE'S SHARE IN THE GENERAL ECONOMY

Agriculture benefited from the NEM during 1968-72 and from the general policy of economic expansion assisted by foreign credits during 1973-78. It registered commendable production growth during the seventies. The value of agricultural gross production during 1974-76 exceeded gross production in the preceding 3-year period by 10 percent while net production value declined 0.7 percent. During 1977-79, the gross production was 11 percent higher than the output during 1974-76 and the net production grew 4.6 percent. The slower growth of net than gross production reflects faster price increases for inputs than for the agricultural commodities produced and reflects also the large influx of capital for infrastructure, modernization of buildings, and new machinery.

Agriculture between 1971 and 1979 gave up 3 percent of its arable land to nonagricultural uses and also released labor in exchange for increased capital inflow and inputs of industrial origin. Despite the loss of land and labor, agriculture throughout the seventies maintained its 16-percent share in total domestic output and 18.5-percent share of net output (table 5). The share of investment in agriculture of 13.8 percent in 1971-73, 13 percent in 1974-76, and 12.7 percent in 1977-79 was below agriculture's share in national income. Agriculture's share of the active labor force declined from 22.6 percent in 1971-73 to 19.3 percent in 1977-79. While the gap between per capita farm income and industrial wages narrowed somewhat, earnings in agriculture remained at only 88 percent of the average industrial wage level in 1979. However, there were some farmers with higher income than the industrial

laborers. Farm incomes were boosted by revenues generated in private households.

The annual rate of growth of Hungarian agricultural output between 1971 and 1979 averaged 2.8 percent. Livestock production rose faster than crop production during this period. The livestock sector's share of total agricultural output increased to 48 percent in 1977-79, up from 44 percent in 1971-73. Pork, poultry, egg, and milk output participated in the growth but beef production remained stagnant after 1974-76, following the loss of the West European market for high-quality cattle for slaughter, a consequence of the common market's protectionist agricultural policy. Improvements in feeding efficiency for hogs and poultry, new breeds, and lower mortality rates were the important factors in production growth. The introduction of the Holstein breed through purchasing either heifers, bulls, or semen principally from the United States led to average milk yields per cow of 3,175 liters in 1977-79 up from 2,530 liters in 1974-76 (table 6).

In the crop sector, corn and potato yields grew at the fastest rate between 1971-73 and 1977-79, 32 and 31 percent, respectively. Yield increases of many other crops were also significant, but yields for pulses, some industrial crops, forages, grapes, and fruits did not grow sufficiently (table 7).

Besides the favorable economic conditions created by the NEM and later through foreign loans and state subsidies, the yield increases were stimulated by the new seed varieties propagated in Hungarian research institutes, the imports of hybrid corn from the United States, the cooperation among the scientists within CMEA, the technological innovations, the growing use of fertilizer and plant protection chemicals, the land improvement work, and new irrigation facilities.

Between 1971-73 and 1977-79, the outlays for mechanization doubled, thus assuring more proper and timely land cultivation and reduced harvest losses (table 8). Fertilizer use increased 14.2 percent and the availability of plant protection agents rose 11.5 percent between 1971-73 and 1974-76, but the increases in use of chemicals slowed down in 1977-79. Land improvement, however, was extended to almost 46,000 ha. annually during 1977-79 compared with annual 34,000 ha. during 1971-73. In contrast, land equipped with irrigation facilities declined by 4,000 ha. to average 176,000 during 1977-79.

Another important factor for increasing yields, unique to Hungary, has been the role of the production systems. A corn production system using U.S. technology was initiated in 1973 in Babolna, the leading state farm. Several other crop and livestock production systems subsequently developed. The system uses identical machinery, cultivation methods, seeds, or breeds first tested by a lead farm. The lead farm provides to participants the know how and often the machinery for a fee. By 1979, 2 million hectares of land were cultivated in various production systems. In the socialized sector, 36 percent of beef cattle and 50 percent of hogs were produced in "systems." The accomplishments of the production systems, however, according to the Secretary of Agriculture have been quantity oriented; cost analysis was relegated to the background. 2/

Specialization in certain crops and livestock production and farm amalgamations were characteristic to the seventies. The number

2/ J. Vancsa, "Tasks of Revitalizing Production Systems," Partelet (Party Life) #9, 1979.

of state farms declined from 183 to 132 between 1971 and 1979 and the number of cooperative farms from 2,373 to 1,350. The size of an average state farm accordingly grew from 5,000 ha. to 7,600; a cooperative farm from 1,800 ha. to 3,900.

Household farming, an old institution of Hungarian agriculture, continued to operate during the 1973-78 period, during the return to dominant state intervention. The share of private production in total agricultural output, however, declined somewhat from 35 percent during 1971-73 to 32 percent during 1974-76 but maintained this share in successive years. The private producers gradually shifted from growing corn or other field crops to the more labor intensive fruits, vegetables, and livestock production. The faster growth in value of output in socialized rather than the private sector was enhanced by the spread of nonagricultural enterprise activities. Nonagricultural value produced accounted for 27 percent of farm revenue during 1977-79, compared with 17 percent during 1971-73.

FOOD CONSUMPTION AND SUBSIDIES

The steady growth of agricultural production during the seventies secured for the Hungarian population an adequate diet and provided the economy with a fair share of exportable surplus. The annual growth rate of per capita food consumption, excluding beverages and tobacco, was 2.2 percent during 1971-75 and 0.5 percent during 1976-78 in constant 1976 prices. Food's share in total consumption declined from 36 to 30.3 percent between 1970 and 1978. In per capita food energy, total protein, and fat consumption, Hungary ranks with the leading countries. In consumption of protein of animal origin, Hungary stands at the middle among the European nations. Per capita meat consumption increased by 11 kg between 1970 and 1975 to 68.5 kg, but by just 2 kg in the following 5 years. The demand for food consumption was influenced by periodic retail price increases and changes in price ratios between meats and other food or nonfood consumer products.

Prices for staple foods such as meat, bread, and sugar have remained heavily subsidized despite a 50-percent retail food price increase between 1970 and 1979. During the same period, procurement prices increased 31 percent and average prices of all imports increased by 56 percent, leaving a still inadequate retail price markup (table 1). Consumer prices were subsidized to compensate for the relatively low wages, and the procurement prices were subsidized to stimulate production for exports, and to help inefficient enterprises to function. To finance these subsidies, Hungary withdrew a large share of profit from successful enterprises, which hurt efficient undertakings, thus crippling growth. The manipulated prices and the subsidies distorted real values and led to a misallocation of resources.

The Hungarian price and subsidy system has been so complicated that the real cost of agricultural production to the nation cannot be easily determined. Thus agriculture's contribution to the national income is not correctly reflected in traditional statistics. Agriculture's real contribution could only be evaluated by an analysis of Government interference in price formation. Hungarian economists believe that despite improved efficiency, Hungarian agriculture is still a high-cost producer relative to the standard of Western industrialized nations because it uses comparatively more inputs per unit produced. 3/

3/ Based on discussions in February, October, and December 1984 issues of Kozgazdasagi Szemle (Economic Review).

FOREIGN TRADE OF AGRICULTURAL PRODUCTS

Hungary had a trade surplus in agricultural commodities for every year during the seventies. Agriculture's share in total exports ranged between 22 and 25 percent, while agricultural imports' share in total imports ranged between 12 and 15 percent. Grains, fruits and vegetables, processed meat, animals for slaughter, and wine have accounted for 80 percent of Hungarian agricultural exports in most years (table 9). Protein meal, coffee, hides and skins, and cotton have been the principal agricultural imports (table 10).

Except for 1978 and 1979, over 50 percent of agricultural exports were shipped to "socialist countries." 4/ The socialist countries' share of Hungary's agricultural imports shrank from about a third during 1971-76 to a fifth during 1977-79. Trade prices and quantities with CMEA members have been negotiated for usually 5 years, corresponding with the plan periods. The bilateral agreements usually specify that raw materials and semi-finished or processed goods be traded for goods belonging in the same category. Production for exports often has not been profitable under the fixed domestic input-output prices. Agricultural production for exports, however, is indispensable because of contracts with CMEA members, the need for hard currency earnings, and maintenance of full employment on farms.

MEASURES SINCE 1979

A major shift in economic policy took place in 1979. Experts debated vigorously during the preceding years concerning the type of measures to generate adequate hard currency earnings to repay foreign debts and to help maintain the living standard at the same time. Three schools of thought emerged which could be labeled as conservative, liberal, and radical. Representatives of all three schools agreed that the only road to solvency and economic recovery lies in increasing productivity and exports, and reducing consumption, investments, and imports. A consensus also evolved that management initiatives must be stimulated by creating an environment with freer market conditions, allowing competition, and larger participation of private entrepreneurs in the economy. If there were protagonists for reliance on more governmental intervention, they remained silent or their views were not printed.

The conservative school has advocated the return to the tenets of the 1968 reforms with some gradual refinements. The liberals have called for more profound changes at once with an enlarged role given to the free market. These changes would include the exemption of a large number of goods from price control, and significant freedom for managers to conduct their business. The radicals pressed for institutional changes involving the organization and role of ministries, banks, and the socialist ownership concept. They promoted accelerated use of private entrepreneurs in small- and medium-size undertakings.

The Government opted for the conservative approach. It rehabilitated the 1968 reforms, which emphasized reliance on market forces and on macroeconomic guidance. As a first step, some producer prices were raised to be in line with world prices. Consumer and investment subsidies were reduced. An increased share of profits was withdrawn from the enterprises, in the form of taxes or compulsory reserve funds, to balance the budget and curtail funds for

4/ Members of CMEA, China, North Korea, Yugoslavia, Cambodia, and Laos.

investment. Imports were restricted through direct controls and through the devaluation of the Hungarian currency.

The harmful effect on the economy of curtailed investments and imports was offset to some extent by improved production efficiency. To instill some competition, the centralization of enterprises into trusts that took place during 1974-78 was reversed. Hungary reduced the layers of government controls from three to two by abolishing district supervisors and requiring the managers to report direct to county councils just one level below the central Government.

The austerity measures retarded economic growth but reduced the foreign trade deficit, reassured the creditors about Hungary's sincerity of making an all-out effort to service the debt, and satisfied the conditions of the international lending institutions for new loans.

These austerity measures and the return to a limited market economy have not been steps toward capitalism. The Hungarians have been only using a few capitalist tools to mend their troubled, overcentralized economy and have opened up opportunities for private entrepreneurs who are willing to work hard on small scale for long hours and willing to take financial risk in anticipation of earning higher income than as employees of the state. Most of the new private undertakings concentrated in services and industries. Private farming in agriculture as a sideline flourished for over a decade and has been integrated with the activities of socialized farms.

In 1979, like in 1968, the measures were designed to rekindle a lackluster economy. There were many similarities, but also differences in the general economic situation at these two dates. But, the problems in 1979 were more complicated. In 1968, the economic problems were internal. The international trade conditions were favorable. The reform was a revolutionary turn from detailed central planning to a guided economy. Industrial growth was facilitated with additional labor released from the agricultural sector.

The 1979 measures involved a return to the 1968 reform principles. However, while in 1968 consumer, producer, and export prices were independently formed, already in 1976 and again in 1979 these price categories were more closely related. Also in contrast with a large package of reforms introduced all at once in 1968 the changes since 1979 were gradual. Another difference was the more pronounced effort in 1979 to provide opportunities for private entrepreneurs and to integrate them in the socialized economy through contracts and lease arrangements.

The gradual changes in economic policy during 1979-84 led to a transition from using principally macroeconomic means to influence the economy to reliance on managers' autonomy for quick response to market signals. In the eighties, the word "reform" to describe the new measures has been sparingly used. "Reform" was replaced by the longer but more appropriate connotation of "further development of economic management system."

The principal objectives of "further development" have been the preservation of Hungarian creditworthiness through meeting debt service obligations. Hungary, with the help of austerity measures, has succeeded in reducing its negative trade balances for every year since 1979. In 1982, Hungary, partly on the merit of its economic policy, was admitted to the IMF and World Bank and obtained long-term loans from these institutions. These loans helped to

keep the country solvent, gave Hungary a breathing spell to restructure its debt, and made foreign lenders more confident in providing fresh credits.

Hungarian policymakers also realized that restrictions imposed on managers with regard to wage disbursement, number of employed, mergers, and choice of investments hamper the managers' innovative ability. To remedy the situation, selected farms and industrial enterprises have been exempt since 1981 from wage and investment restrictions. The exempted enterprises were permitted on a trial basis to reward workers in accordance with their increased productivity; management was allowed to reinvest after tax profit as they pleased. After a few years in practice, these management experiments have been declared successful; beginning in 1985, this system is to be applied nationwide.

The moderated wage and employment policy may create serious differentiations in income and lead to eventual employee dismissals. But, benefits from higher efficiency are expected to outweigh the social consequences of ignoring egalitarianism. The managers' freedom of manpower disposal will relieve the enterprises from carrying unwanted or surplus labor on the payroll and responsibility will shift to the Government for retraining and relocating the unemployed. Unprofitable enterprises will be absorbed or liquidated.

Beginning in 1985, import and investment restrictions will be eased to help the economy recover from the standstill and to raise the living standard again after 5 years of stagnation or deterioration.

The "further development" will involve the planning process, all macroeconomic regulators, the management, and the functions of several institutions. The change in planning, however, will be minor. Planning will be more flexible, will adapt to market shifts, and will be better harmonized with the producers' intentions. Plans will consider the social as well as the economic aspects of central goals. They will continue to encompass obligations arising from agreements within the CMEA members, will guide community development, and safeguard the environment. The official consumer and producer prices will be fixed according to the past methodology on the basis of production cost, social value, and prevailing international prices, but the effects of international price fluctuations will be dampened. Subsidies will be reduced for staple foods, rents, and utilities or discontinued for other products. Managers' income will be tied more closely to performance. Managers will be allowed to decide on mergers, and to fail and dissolve enterprises. Instead of state subsidies, enterprise income and bank credits will be the principal sources of investments. Commercial banking will be divested from the central bank activities. Thus, allocation of credits will be made more competitive.

The breaking up of trusts and inefficient large enterprises will continue. The responsibilities of enterprise managers will be enhanced and the management selection process changed. Managers will be elected either by a nominating committee selected from enterprise employees or by the appropriate ministries through competitive application. A council elected by employees will participate in long-range strategic decisions but managers will be responsible for day-to-day activities. The ministries, however, will maintain veto power in the selection of top managers. Some trusts, a few very large enterprises, and all public utilities will remain state-managed.

The recent Hungarian economic policy is apparently sympathetically viewed by the other CMEA members. All East European countries and the Soviet Union are

groping to find some new forms of incentives to revitalize their economies. The Hungarians have by now proved that their 1968 reform created a beneficial environment for the agricultural sector in particular and did not weaken the Communist Party's grip on the economy. Hungary's obligations and trade with CMEA continued to receive top priority and the social ownership of production means remained intact.

AGRICULTURAL PERFORMANCE SINCE 1979

The drastic restrictive measures in effect during 1979-84 squeezed agricultural profits and forced the farm managers to increase labor and capital productivity and to be thrifty, especially in energy and feed use. Agriculture responded relatively well to the challenge.

During 1980-82, agriculture's contribution to the national income increased 1 percentage point over 1977-79. Agriculture's contribution to the national budget during 1978-83 grew 10 times faster than the subsidies provided to the sector. 5/ The number of active wage earners in agriculture increased slightly since 1979 but the employment increased more in nonagricultural undertakings of the farms than in basic agricultural jobs.

Substantial yield increases for grains, sunflowerseed, potatoes, and sugar beets were obtained in 1980-82 despite the austerity measures. The rate of yield increase for many crops in comparison with the preceding 3 years was higher than in 1977-79. The livestock production growth was deliberately slowed down with unfavorable feed-livestock price ratios because of foreign marketing problems. A decline in gross agricultural production in 1983 was related to weather. In 1983, the country suffered from the worst drought in 30 years. However, current estimates for 1984 indicate an approximate 3-percent increase in gross production which offset the 1983 decline of 3.2 percent. 6/

During 1980-82, a price reform constituted the most important policy change in the agricultural sector. State procurement prices were up an average 10 percent in 1980 and 7 percent in 1981, but they leveled off in 1982. Higher procurement prices, however, did not cover the even faster increases in input prices. Retail food prices were raised even more than the procurement prices to enable a reduction of food subsidies by the State.

Gross agricultural production during 1980-82 compared with the 1977-79 output grew 8 percent despite a 20-percent decline in real value of investments, less fertilizer use, and contraction in the area of irrigable land. Managerial resourcefulness, swift application of science, and new technology substituted for the shortfall in investments and inputs and generated increased productivity.

The increase in gross output was not transferred to higher per capita farm income. Income of state farm employees in 1980-82 declined 3 percent (cooperative farmers, 4 percent) compared with the 1977-79 income. The decline began in 1979 and it became the sharpest during the drought year of 1983.

5/ Statement of J. Vancsa, Secretary of Agriculture, at the XXIII Congress of Economists, *Kozgazdasagi Szemle* (Economic Review) Sept. 1984.

6/ *Nepszabadsag*, Jan. 26, 1985.

The good production results in agriculture helped to increase agricultural exports by a third and the share of agricultural exports from 22.3 percent of total exports in 1977-79 to 24.6 percent in 1980-82. During the same period, the share of agricultural imports declined from 12 to 11 percent. The ranking of exports by commodity groups did not change, but the share of meat and meat products, grain and grain products, and vegetable oil and fats increased at the expense of live animals, fruits, and vegetables. The agricultural trade surplus averaged \$1.2 billion in 1980-82. The direction of agricultural exports, however, shifted to the socialist countries from 48 percent of total in 1977-79 to 57 percent in 1980-82. The share of both the developed and developing countries declined. Agricultural imports shifted from the developing countries to the socialist and developed countries.

OUTLOOK FOR HUNGARIAN AGRICULTURAL TRADE

Hungary currently exports about 25 percent of its agricultural production. The domestic food market is saturated at present price and income levels. If per capita real income increases following the resumption of economic growth, the Government will likely decrease subsidies and let food prices rise and demand for food stabilize. In January 1985, milk and milk product prices were increased an average 28 percent, sugar prices 16 percent, and processed meat prices 10 percent. ^{7/} If agricultural production increases 1 to 2 percent annually as the planners project it, most of the increment must be sold on the export market. ^{8/}

Hungarian forecasters are aware that despite a faster growth of world population than agricultural production in many developing countries, global trade will not grow at the same rate as global demand. Countries with the highest population growth will be unable to generate adequate income to maintain their present per capita consumption. The slow growth of effective demand in developed countries and in the European CMEA countries combined with their goal for self sufficiency does not augur well for Hungarian agricultural export expansion. The best market for grains and meat will remain the Soviet Union. Larger inroads to Western markets would entail more product diversification and significant modernization of the Hungarian food industry. Hungary would have to provide better quality and new varieties of food products to broaden its participation in the western markets, but currently investment funds for expansion and technological improvements are scarce.

Hungary, however, despite its marketing difficulty has no alternative but to stimulate agricultural production, and hope to penetrate new markets. Food is an important hard currency earner and can be exchanged for energy in the Soviet Union and for new technology in the West.

Hungary has succeeded in greatly reducing agricultural imports. The imports are now concentrated on protein feed, cotton, and tropical food. The increased agricultural exports and decreased imports led to an annual average \$1.2 billion agricultural trade surplus during 1980-82 compared with \$700 million in 1977-79. A further widening of agricultural trade balance is likely.

^{7/} Nepszabadsag, Jan. 19, 1985. ^{8/} Magyar Mezogazdasag, 1982, #51-52.

Implications for the United States

U.S. agricultural exports to Hungary in the seventies reached the highest level in 1978 at \$53 million and declined during the following years when Hungary had to resort to import restrictions ^{9/}. Large Commodity Credit Corporation (CCC) credits restored the value of export to \$58 million in 1983. Soybean meal and cattle hides have comprised two-thirds to three-quarters of U.S. exports to Hungary in the seventies and eighties (table 12). Total imports of both of these products will likely decline in the coming years as Hungary may shift from live cattle to beef exports and provide a larger share of protein feed from its domestic supply. However, U.S. share in Hungarian protein meal and hides and skins imports of 10 percent and 8 percent, respectively, in 1980-82, can be raised if U.S. prices and credit terms are competitive.

The Hungarian agricultural policy elevated Hungary to among the countries with the highest per capita food production. The United States can hope only to gain a larger share from a shrinking market. If the CMEA countries internal trade is conducted at world market prices, as currently indicated, the financial advantage of Hungarian cotton imports from the USSR should diminish and the United States could enlarge its traditionally very small cotton sales to Hungary.

^{9/} Eastern Europe Outlook and Situation Report USDA/ERS RS-84-7, June 1984.

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Table 1--Price indexes

Year	Consumer prices		State procurement	Import	Export
	Total	Food			
1970 = 100					
1971	101.7	101.6	102.6	99.3	97.2
1972	104.9	104.9	104.9	101.7	98.7
1973	108.6	110.4	113.2	110.7	107.0
1974	110.9	111.7	115.0	128.9	115.3
1975	115.8	114.0	115.4	147.2	122.3
1976	121.9	120.5	128.2	137.3	116.6
1977	126.8	127.2	128.2	147.0	120.6
1978	133.0	134.7	130.3	147.1	119.9
1979	145.9	150.3	131.0	156.0	124.9
1980	159.3	162.3	144.7	153.4	123.2
1981	167.3	167.3	154.8	160.5	127.9
1982	178.3	181.0	154.3	166.0	129.3

Source: Official statistical publications of Hungary.

Table 2--Total and agricultural trade

Year	Exports		Imports		Balance 1/	
	Total	Agricultural	Total	Agricultural	Total	Agricultural
<u>Million \$</u>						
1971	2,500.4	602.4	2,989.7	413.9	(489.3)	188.5
1972	3,291.0	772.5	3,153.2	417.7	137.8	354.8
1973	4,528.0	1,106.0	3,993.9	550.4	534.0	555.7
1974	5,128.4	1,268.9	5,574.6	815.6	(446.2)	453.3
1975	6,094.1	1,399.8	7,175.3	819.0	(1,081.2)	580.8
1976	6,231.0	1,442.7	6,998.3	937.5	(767.3)	505.2
1977	7,422.6	1,748.9	8,316.0	1,155.2	(893.4)	593.7
1978	8,024.0	1,785.2	10,031.6	1,169.6	(2,007.6)	615.6
1979	9,788.7	2,101.5	10,719.0	1,211.0	(930.3)	890.5
1980	8,700.4	1,990.2	9,234.8	1,100.4	(534.4)	889.8
1981	8,712.4	2,249.2	9,128.1	1,044.3	(415.7)	1,204.9
1982 <u>2/</u>	9,442.2	2,382.8	9,434.0	856.0	8.2	1,526.8

1/ Negative values parenthesized.

2/ Estimated from figures in forints.

Sources: FAO Trade Yearbooks, Foreign Tradebook of Hungary, 1983.

Table 3--Gross and net hard currency debt
to the West, 1971-82 1/

Year	Gross	Debt	Net
<u>Million \$</u>			
1971	1,071		848
1972	1,392		1,055
1973	1,492		1,096
1974	2,129		1,537
1975	3,135		2,195
1976	4,049		2,852
1977	5,020		3,856
1978	7,290		6,349
1979	8,140		6,910
1980	9,090		7,000
1981	8,700		7,050
1982	7,700		6,600
1983	8,250		6,750

1/ Net debt = gross debt less assets held in
Western banks

Source: Handbook of Economic Statistics, CIA, 1981,
1983 and 1984

Table 4--Economic growth indicators

Item	<u>3-year averages</u>		
	1974-76/ 1971-73	1977-79/ 1974-76	1980-82/ 1977-79
<u>Percent change</u>			
National income	18.7	16.3	4.3
Per capita real income	14.2	9.0	3.5
Gross agricultural product	10.0	11.0	8.0
Of which--			
Plants	8.0	7.8	9.5
Livestock	12.0	14.0	6.7
Net agricultural product	-.7	4.6	7.4
Agricultural land	-1.1	-1.1	-1.3
Arable land	-1.4	-1.8	-1.4
Active labor	.8	0	-1.0
Of which--			
Agricultural	-8.8	-5.8	1.0
Investments	31	22.7	-20.5
Of which--			
Agricultural	23.7	17.4	-15.4

Source: Official statistical publications of Hungary.

Table 5--Agriculture's share in the economy

Item	3-year averages			
	1971-73	1974-76	1977-79	1980-82
	<u>Percent</u>			
Active labor force	22.6	20.5	19.3	19.7
Gross output	16.4	16.1	16.2	17.2
Net output	18.5	18.1	18.5	19.1
Investment	13.8	13.0	12.7	13.3
Exports	24.0	23.6	22.3	24.6
Imports	13.6	13.1	12.2	10.8

Source: Official statistical publications of Hungary.

Table 6--Livestock production productivity indicators

Year	Beef/ cattle	Pork/ hogs	Milk/ cows	Eggs/ hens
	<u>--Kilograms--</u>		<u>Liters</u>	<u>Unit</u>
1971-73 avg.	167	126	2,392	132
1974-76 avg.	173	131	2,543	136
1977-79 avg.	174	143	3,175	144
1980-82 avg.	170	146	3,803	139
	<u>Percent change</u>			
1974-76/1971-73	3.6	4.0	6.3	3.0
1977-79/1974-76	.6	9.2	24.8	5.9
1980-82/1977-79	-2.3	2.1	19.8	-3.5

Source: Calculated from Hungarian official data.

Table 7--Yields of principal crops

Year	Wheat	Barley	Corn	Sugar beets	Potatoes	Sunflower seed	Alfalfa	Hay
<u>Tons/hectare</u>								
1971-73 avg.	3.22	2.82	3.88	31.48	11.20	1.32	4.43	1.23
1974-76 avg.	3.61	3.11	4.40	33.53	12.43	1.21	5.01	1.23
1977-79 avg.	3.86	3.08	5.12	33.67	14.69	1.62	5.38	1.50
1980-82 avg.	4.38	3.40	6.01	39.69	16.83	1.89	5.51	1.66
<u>Percent change</u>								
1974-76/1971-73	12.1	10.5	13.3	6.5	11.0	-8.6	13.0	-0.3
1977-79/1974-76	6.9	-1.2	16.3	.4	18.2	34.0	7.3	22.2
1980-82/1977-79	13.5	10.5	17.5	17.9	14.6	17.1	2.5	10.2

Table 8--Investments and inputs

Item	<u>3-year averages</u>			
	1971-73	1974-76	1977-79	1980-82
<u>Billion forints</u>				
Agricultural investments	14.3	19.7	26.8	28.4
<u>Percent</u>				
Of which--				
Construction	53.8	NA	36.9	1/ 47.1
Mechanization	38.5	NA	52.6	<u>1/</u> 40.0
<u>1,000 ha.</u>				
Land improvement	34.0	38.5	46.0	45.8
Land with irrigation facilities	179.5	176.9	175.5	159.3
<u>1,000 tons</u>				
Fertilizer use	1,298	1,483	1,517	1,471
Plant protection agent use <u>2/</u>	64	71	69	72

NA = Not available.

1/ 1981 and 1982 only

2/ Computed from production and trade.

Source: Official statistical publications of Hungary.



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Table 9--Hungarian agricultural exports by group of products

Commodity	3-year averages			
	1971-73	1974-76	1977-79	1980-82
	<u>Percent</u>			
Live animals	20	12	14	12
Meat & meat products	19	21	26	28
Dairy products & eggs	2	3	3	4
Grain & grain products	11	18	8	11
Fruit and vegetables	25	21	20	17
Beverages	10	9	9	8
Oilseeds	1	1	2	2
Raw material of plant and animal origin	2	3	4	3
Vegetable oils & fats	2	2	2	4
Other	8	11	11	11

Source: Kulkereskedelmi Statisztikai Evkonyv (Statistical Yearbook of Foreign Trade), 1975, 1976, 1979, 1982.

Table 10--Hungarian agricultural imports by group of products

Commodity	3-year averages			
	1971-73	1974-76	1977-79	1980-82
	<u>Percent</u>			
Grain and grain products	10	5	6	3
Fruit and vegetables	6	7	8	8
Sugar and honey	6	11	3	4
Coffee, tea, cocoa, and condiments	7	12	19	15
Livestock feed except grain	19	20	23	22
Beverages	6	4	4	5
Hides, skins, and furs	6	5	8	6
Rubber	4	4	4	5
Cotton and other fibers	20	19	16	18
Other	16	13	9	14

Source: Kulkereskedelmi Statisztikai Evkonyv (Statistical Yearbook of Foreign Trade), 1975, 1976, 1979, 1982.

Table 11--Share of Hungarian agricultural trade by group of countries 1/

Year	EXPORTS			IMPORTS		
	Socialist <u>2/</u> countries	Developed countries	Developing countries	Socialist countries <u>2/</u>	Developed countries	Developing countries
	<u>Percent</u>					
1971	54	<u>3/</u> 46	--	40	<u>3/</u> 60	--
1972	51	<u>3/</u> 49	--	30	<u>3/</u> 70	--
1973	54	<u>3/</u> 46	--	28	<u>3/</u> 72	--
1974	58	38	4	30	43	27
1975	63	33	4	40	31	29
1976	54	41	5	25	35	40
1977	52	41	7	21	32	47
1978	44	46	10	20	36	44
1979	49	43	8	21	39	40
1980	52	42	7	22	38	41
1981	59	33	8	25	38	37
1982	61	32	7	27	37	36

-- = Included under developed countries.

1/ Data includes food and food products only.

2/ CMEA members, Yugoslavia, China, Cambodia, Laos, and North Korea.

3/ Developed and developing countries combined.

Source: Official statistical publications of Hungary.

Table 12--U.S. agricultural exports to Hungary

Year	Total	Oilcake and meal	Hides and skins	Corn	Other
	<u>Million \$</u>				
1971-73 average	16.8	12.1	2.2	--	2.5
1974-76 average	33.4	25.0	5.2	--	3.2
1977-79 average	37.0	19.3	6.9	6.7	4.1
1980-82 average	14.8	6.0	4.1	--	4.7
1983	58.1	50.8	3.8	--	3.5

-- = Insignificant (less than \$1 million).

Source: U.S. Bureau of Census, Department of Commerce.